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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,442	03/26/2004	Atsuhisa Nakashima	119265	8129
25944	7590	05/25/2006		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER MRUK, GEOFFREY S	
			ART UNIT 2853	PAPER NUMBER

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/809,442

Applicant(s)

NAKASHIMA, ATSUSHI

Examiner

Geoffrey Mruk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/26/04, 5/24/05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

Claim 1 is objected to because of the following informalities: Line five states "ontofedprinting medium for printing". For examination purposes, the examiner will interpret the typographical error as "onto said printing medium for printing". Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Taylor et al. (US 5,980,018).

With respect to claim 1, Taylor discloses a printer maintenance apparatus (Fig. 1, element 45) for maintaining a printer (Fig. 1, element 20) having a print head (Fig. 1, elements 50, 52), wherein the print head includes a nozzle surface in which a plurality of nozzles are formed, for ejecting ink droplets onto said printing medium for printing (Column 1, lines 19-24), the apparatus comprising:

- a mounting base (Fig. 3, element 46) that is movable forward and backward (Fig. 3, element 66) between a maintenance position and a retraction position, the

maintenance position in which the mounting base is opposed to the nozzle surface and the retraction position which the mounting base retracted from the print head (Column 14, lines 39-57);

- a wiping mechanism (Fig. 4, element 124) being mounted on the mounting base (Fig. 3, element 46) and including a wiper base (Fig. 4, element 190) supported on the mounting base movably toward the nozzle surface and a wiper (Fig. 4, element 150) attached to the wiper base; and
- a capping mechanism (Fig. 4, element 200) being mounted on the mounting base (Fig. 3, element 46) and including a cap base (Fig. 4, element 202) supported on the mounting base movably toward the nozzle surface and a cap (Fig. 4, element 210) attached to the cap base;
- wherein the cap base moves toward the nozzle surface to move the cap to cover the nozzle surface when the mounting base is at the maintenance position (Column 15, lines 17-34);
- the cap base moves retractably from the nozzle surface when the mounting base moves from the maintenance position toward the retraction position (Fig. 4, element 66);
- the wiper base moves toward the nozzle surface to bring the wiper into contact with the nozzle surface when the mounting base is at the maintenance position (Column 14, lines 39-47); and

- the wiper base keeps the wiper in contact with the nozzle face while the mounting base moves backward from the maintenance position toward the retraction position (Column 10, lines 31-33; Fig. 4, element 66).

With respect to claim 2, Taylor discloses the cap base (Fig. 4, element 202) has an engagement portion (Fig. 4, elements 204, 206) which abuts against a fixed portion (Fig. 4, element 40) disposed in the printer, at a forward end of the maintenance position due to a forward motion of the mounting base to the maintenance position, to thereby move the cap base toward the nozzle surface and cover the nozzle surface with the cap (Column 15, lines 17-24).

With respect to claim 3, Taylor discloses the wiper base (Fig. 4, element 190) abuts against a fixed portion which abuts against a fixed portion disposed in the printer, at the maintenance portion due to a forward motion of the mounting base (Fig. 4, elements 194, 198) to the maintenance position, to thereby move the wiper toward the nozzle surface and bring the wiper into contact with the nozzle surface (Column 15, lines 5-16).

With respect to claim 4, Taylor discloses the capping mechanism includes a plurality of link members (Fig. 4, elements 128) each supported swingably at one end on the mounting base and supported swingably at the other end on the cap base (Column 11, lines 30-53).

With respect to claim 5, Taylor discloses the capping mechanism (Fig. 2, element 69) includes a cam groove (Fig. 2, element 86) inclined to the nozzle surface and a pin slidable in the cam groove, and one of the cam groove and the pin is provided in the

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mounting base (Fig. 2, element 62) while the other is provided in the cap base (Fig. 2, element 85; Column 10, lines 1-12).

With respect to claim 6, Taylor discloses the capping mechanism (Fig. 4, element 20) allows the cap to leave the nozzle surface due to self-weight of the cap base in backward motion of the mounting base from the maintenance position to the retraction position (Column 10, lines 11-13, i.e. weight of element 85).

With respect to claim 7, Taylor discloses the capping mechanism includes an urging member that urges the cap to leave the nozzle surface (Fig. 2, element 90; Column 10, lines 11-13).

With respect to claim 8, Taylor discloses

- the wiping mechanism (Fig. 4, element 124) supports the wiper base swingably (Fig. 4, elements 114, 115) on the mounting base (Fig. 4, element 190); and
- the wiping mechanism includes an urging member (Fig. 3, 105) that swings the wiper base to bring the wiper into contact with the nozzle surface (Column 11, lines 18-29).

With respect to claim 9, Taylor discloses

- the wiping mechanism (Fig. 4, element 124) includes a lever (Fig. 4, element 118) supported swingably (Fig. 4, elements 114, 115) on the mounting base (Fig. 4, element 190);
- the lever is swingable between a separation position and a wiping position, the separation position where the lever abuts against the wiper base to thereby swing the wiper base against urging of the urging member and make the wiper

leave the nozzle surface, the wiping position where the lever brings the wiper into contact with the nozzle surface (Column 10, lines 28-41); and

- the lever (Fig. 10, element 118) is swung to the wiping position at a forward end due to a forward motion of the mounting base to the maintenance position (Column 11, lines 41-53) .

With respect to claim 10, Taylor discloses the wiping mechanism (Fig. 4, element 124) swings the lever (Fig. 4, element 118) to the separation position at a backward end due to a backward motion of the mounting base.

With respect to claim 11, Taylor discloses

- the wiping mechanism (Fig. 4, element 124) supports the wiper base (Fig. 4, element 190) shiftably (Fig. 4, element 115) on the mounting base (Fig. 4, element 46);
- the wiping mechanism includes an urging member (Fig. 3, 105) that urges the wiper base to leave the nozzle surface;
- the wiping mechanism brings the wiper into contact with the nozzle surface due to a forward motion (Fig. 4, element 66) of the mounting base to the maintenance position; and
- the wiping mechanism shifts the wiper base by means of the urging member so as to make the wiper leave the nozzle surface (Column 14, lines 39-57).

With respect to claim 12, Taylor discloses a printer (Fig. 1, element 20) comprising:

- a print head (Fig. 1, elements 52, 56) including a nozzle surface that ejects ink droplets onto fed printing medium (Column 1, lines 19-24);
- a mounting base (Fig. 3, element 46) that movable forward and backward (Fig. 3, element 66) between a maintenance position and a retraction position, the maintenance position in which the mounting base is opposed to the nozzle surface and the retraction position in which the mounting base is retracted from the print head (Column 14, lines 39-57);
- a wiping mechanism (Fig. 4, element 124) being mounted on the mounting base (Fig. 3, element 46) and including a wiper base (Fig. 4, element 190) supported on the mounting base movably toward the nozzle surface and a wiper (Fig. 4, element 1500) attached to the wiper base; and
- a capping mechanism (Fig. 4, element 200) being mounted on the mounting ((fig. 3, element 46) base and including a cap base (Fig. 4, element 202) supported on the mounting base movably toward the nozzle surface and a cap (Fig. 4, element 210) attached to the cap base;
- wherein the cap base moves toward the nozzle surface to move the cap to cover the nozzle surface when the mounting base is at the maintenance position (Column 15, lines 17-34);
- the cap base moves retractably from the nozzle surface when the mounting base moves from the maintenance position toward the retraction position (Fig. 4, element 66);



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- the wiper base moves toward the nozzle surface to bring the wiper into contact with the nozzle surface when the mounting base is at the maintenance position (Column 14, lines 39-47); and
- the wiper base keeps the wiper in contact with the nozzle surface while the mounting base moves backward from the maintenance position toward the retraction position (Column 10, lines 31-33; Fig. 4, element 66).

With respect to claim 13, Taylor discloses the cap base (Fig. 4, element 202) has an engagement portion (Fig. 4, elements 204, 206) which abuts against the fixed portion (Fig. 4, element 40) at a forward end of the maintenance position due to a forward motion of the mounting base to the maintenance position, to thereby move the cap base toward the nozzle surface and cover the nozzle surface with the cap (Column 15, lines 17-24).

With respect to claim 14, Taylor discloses wherein the fixed portion (Fig. 4, element 40) is a lock portion that is disposed at the print head (Fig. 6, elements 50, 52).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey Mruk whose telephone number is 571 272-2810. The examiner can normally be reached on 7am - 330pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GSM  
5/18/2006

GM



**STEPHEN MEIER**  
**SUPERVISORY PATENT EXAMINER**